

Thermacore[®] AP Door System



MODEL

850



INDUSTRY LEADING
COMMERCIAL & INDUSTRIAL SOLUTIONS

Sectional Insulated Thermacore® Advanced Performance (AP) Doors

MODEL 850

Standard Features At a Glance

Panel thickness	3" (76.2 mm)
R-value*	26 (4.58 m ² /W)
U-value**	.038 (.22 W/m ²)
Installed U-factor†	.14 Btu/hr *ft ² *F° (.80 W/m ²)
STC Rating††	Class 22
Air infiltration‡: at 15 mph (24 kmph)	.09 cfm/sq ft (1.65 m ³ /hr/m ²)
Maximum width	40' 2" (12243 mm)
Maximum height	24' 1" (7317 mm)
Exterior steel	.015" (.38 mm)
Exterior surface	Microgroove, textured
Exterior color	White, brown, almond, taupe
Interior color	White
Joint profile:	Dual barrier tongue-in-groove meeting rail consists of the industry's first dual tongue and groove joint profile (patents pending).
Thermal break	1-3/4" wide PVC thermal break; PVC thermal break on end stiles
Perimeter protection	Header seal Bottom weather seal; rigid PVC retainer with dual-durometer PVC bulb seal Enhanced thermal performance jamb seal (option) EPDM‡‡ outer bulb seal recommended for more extreme environments (option)
Continuous hinge strip	Two continuous steel strips at top and bottom of section for hinge attachment
Standard springs	10,000 cycle
Limited Warranty	10-year delamination 1-year material and workmanship 3-year/20,000 cycle door and operator system (material and workmanship)

Options

- Large thermal lites (25" w x 13" h); black frame standard; optional color matched frame available
- Glass: insulated, insulated tempered, multi-wall polycarbonate in clear, bronze, or white
- High-cycle springs
- High-usage components
- Electric operator
- Chain hoist
- Cable failure device
- Bottom sensing edge

* R-value is a measure of thermal efficiency. The higher the R-value the greater the insulating properties of the door. Overhead Door Corporation uses a calculated door curtain R-value for our insulated doors.

**U-value is a measure of the flow of heat through an insulating or building material; the lower the U-value, the better the insulating ability. U-value is the inverse of R-value.

Thermacore® AP provides advanced performance

The Thermacore® AP Model 850 is engineered to deliver advanced performance in commercial and industrial applications where climate control, durability and ease of maintenance are primary concerns.

The Solution for Demanding Application Needs

Backed by an industry leading 3 year door and operator system warranty, the Thermacore® AP door system's advanced performance answers the demand for more reliability, durability, design flexibility and thermal efficiency. The 850 door is the ideal choice for thermal protection against heat or cold in heavy duty applications, including the following:

- Agricultural buildings
- Food and beverage storage facilities
- Pharmaceutical facilities
- Climate controlled facilities
- Industrial manufacturing facilities
- Government facilities
- Shipping and receiving docks

Advanced Thermal Performance

This door system presents the most advanced thermal performance values published by any major US manufacturer of 3" commercial insulated sectional doors with an R-value* of 26, U-value** of .038 and a tested installed U-factor† of .14.

The Thermacore® AP 850 features superior construction with a 3" thick profile consisting of high density foam injected CFC and HCFC-free polyurethane insulation. The polyurethane insulated core offers the best insulation values per square inch.

Delivering further thermal efficiencies, the dual barrier tongue and groove joint profile (patents pending), creates a virtually impenetrable path for air leakage (air infiltration) in between door sections. This exclusive joint profile also serves as a true thermal break, 1-3/4" wide, preventing front and back skins from transferring heat or cold. A second PVC thermal break further prevents heat or cold transfer at the end stiles.

Advanced Perimeter Protection

The advanced perimeter design of the Thermacore® AP 850 door system contributes to the overall superior thermal performance. A uniquely designed curved wall angle provides a tighter fit of the steel jamb seal to the wall angle; minimizing air leakage on the sides of the door system. This system also features top to bottom advanced perimeter protection providing an air infiltration‡ rating at 15 mph of .09 cfm/sq ft (1.65 m³/hr/m²).

† Installed U-Factor - A tested value of actual energy loss - whether heat or cold - of an installed door, wall, or window assembly. The lower the number the lower the energy loss and therefore the better the thermal performance. For best U-factor, choose finish and color with high solar reflectance (bright colors).

†† Sound Transmission Class (STC): how well the door reduces airborne sound. The higher the number the better sound reduction.



Enhanced thermal performance, strength and durability

PVC thermal break on end stiles limits the transfer of temperature.



Enhanced thermal performance jamb seal (optional) combines a longer flapper seal and bulb seal for superior perimeter protection.



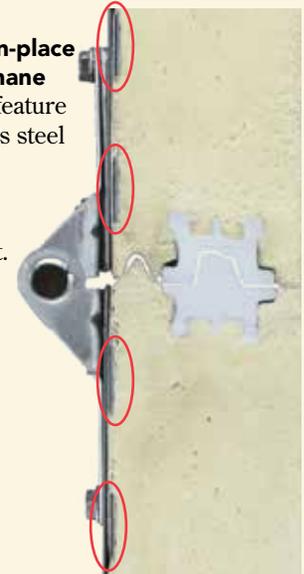
Dual barrier tongue and groove joint profile creates a virtually impenetrable path for air leakage in between sections.



Bottom weatherseal with rigid PVC retainer and dual durometer PVC bulb seal locks out air and water leakage through the bottom section. Optional outer EPDM bulb seal provides additional protection.



3" thick foamed-in-place polyurethane sections feature continuous steel strips for flexibility in hinge placement.



The header seal ensures a tight seal at the top of the door. The bottom weatherseal, featuring a rigid PVC retainer and dual durometer PVC bulb seal, locks out air and water leakage through the bottom section. The optional EPDM bulb seal is recommended for extreme weather conditions. Our patent pending enhanced thermal performance jamb seal combines an extended flapper and bulb seal in one unique design to complete the door system's perimeter protection.

The Thermacore® AP door system furnishes a Sound Transmission Class (STC)^{††} rating of 22, minimizing noise transfer through and around the door. The higher the STC^{††} rating the better the buffering is from the transmission of sound through and around the door.

Flexibility in Design

The Thermacore® AP door system sections feature continuous steel strips that run along the width of each section which allows hinges to be placed anywhere along the section, unimpeded lite placement and easier center mounting of a trolley operator. Operation options include chain hoist and electric operator. The varied options of operation and mounting (left or right handed) afford flexibility to meet the needs of the facility and application.

Many Options, Customized Solutions

The Thermacore® AP Model 850 is available with a number of options to meet individual application needs. The large thermal lites afford maximum visibility and light transmittance; available with carefully chosen glazing options that optimize thermal performance including: insulated glass, insulated tempered glass, and multi-wall polycarbonate (clear, white, bronze). Lites come standard with a black frame, color matched frames are also available.

Finish options include two coats of baked-on polyester paint, available in four colors to blend with the design aesthetic of the facility. For applications with advanced security and safety needs consider extra locks, a sensing edge, photo-eyes, and a cable failure device. For high usage projects consider the high cycle springs and high cycle components package. Ask your Overhead Door Distributor for more information about the special applications options.

For additional information, or special project requirements, consult your Overhead Door Distributor or the Overhead Door Architectural Design Manual.

[†] Air infiltration (leakage): Air leaking into or out of a building through small openings in doors, windows, walls, floors, roof, and other construction. Air infiltration is a primary cause for heat (or cold) loss in buildings. Measured in cfm/ft² contributes to overall installed thermal performance. The lower the number the better the insulating properties. Tested with optional enhanced thermal performance steel jamb seal.

^{††} EPDM - ethylene propylene diene monomer rubber. Used in the automotive industry for its superior durability and wearability.

The Original, Innovative Choice for Unequaled Quality and Service

Overhead Door Corporation pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door operator in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door Corporation products more often than any other brand.

The Overhead Door Red Ribbon is a mark of quality that also reflects the pride we take in the people who support our products. Our family of over 400 Overhead Door Distributors across the country not only share our name and logo, but also our commitment to excellence. Your Overhead Door Distributor will work with you in a consultative role to ensure that product selections achieve your design and application requirements — in addition to offering expert installation, professional field service and ongoing maintenance. From project design and manufacturing to installation and service, the Overhead Door Red Ribbon is your guarantee of genuine quality and turnkey service excellence.

Together with our distributors, we offer comprehensive technical information and resource materials to support your project, including:

- Architectural Design Manual – a comprehensive guide to selecting, specifying and detailing all commercial and industrial Overhead Door products can be found at www.OverheadDoor.com/ADM/base.html
- Operation & Maintenance Manual – detailed product information, customized for your project, to ensure reliable, long-life door system operation
- Custom application and technical assistance through ordering plants' customer service and technical services respectively
- Visit our Architect's Corner at www.OverheadDoor.com



Advanced Rolling Steel Door
RapidSlat®



Thermacore® Sectional Doors



Rolling & Side Folding
Security Grilles & Closures



Rolling Service Doors



Commercial Operators

Today, Overhead Door Corporation – along with our Horton Automatics division, for automated pedestrian entrances – is recognized as the leading, single-source manufacturer of integrated door and operator systems for commercial, industrial and residential applications. With multiple manufacturing locations throughout the United States, a state-of-the-art TREQ (Testing, Reliability, Engineering, and Quality) Center for design and engineering, and a national network of authorized Overhead Door Distributors, our capabilities are leading-edge and our field service and technical support second to none. Built best and backed best, Overhead Door is the industry's leading choice for quality that shows and lasts.

To talk with the Overhead Door Distributor nearest you, call 1-800-929-DOOR.

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